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10/828,936

04/20/2004

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7187-US1

5117

7590

03/15/2006

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EXAMINER

BARBEE, MANUEL L

ART UNIT

PAPER NUMBER

2857

DATE MAILED: 03/15/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

10/828,936

Applicant(s)

HAGEN ET AL.

Examiner

Manuel L. Barbee

Art Unit

2857

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 03 September 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-21 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-12, 16 and 17 is/are rejected.
- 7) ☒ Claim(s) 13-15 and 18-21 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 03 September 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_.
- ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: \_\_\_\_\_.

## **DETAILED ACTION**

### ***Claim Objections***

1. Claims 16 and 19 are objected to because of the following informalities:

In claim 16, line 1 of the claim, delete "16", and insert --1--.

In claim 19, line 1 of the claim, delete "17", and insert --18-- to correct the lack of antecedent basis for "said content."

Appropriate correction is required.

### ***Claim Rejections - 35 USC § 101***

2. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

3. Claims 1, 6-12, 16 and 17 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter. Claims 1, 6-12, 16 and 17 are directed to a method which receives a plurality of sample streams representing signal measurements, manipulates the sample streams and generates waveform data with the sample streams. The claims recite a mathematical algorithm that generates waveform data from sample streams with no limitations for a physical transformation or production of a useful concrete and tangible result and are therefore nonstatutory.

### ***Claim Rejections - 35 USC § 102***

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

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(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. Claims 1-5 are rejected under 35 U.S.C. 102(b) as being anticipated by Faust et al. (US Patent Application Publication 2003/0058243).

With regard to receiving a plurality of sample streams representing respective signal measurements made in different measurement domains, as shown in claim 1, Faust et al. teach historical measurements of waveforms (par. 55). With regard to temporally aligning the sample streams and generating waveform data associated with the sample streams representing sample magnitudes as a function of time and including Z-axis information adapted to illustrate an inter-stream timing relationship, as shown in claim 1, Faust teach a waterfall display of the sample waveforms with magnitude displayed along one axis and time along the z-axis for more than one waveform (par. 55; Fig. 6).

With regard to a three-dimensional representation, as shown in claim 5, Faust et al. teach a waterfall display (Fig. 6). With regard to a perspective view, as shown in claim 3, Faust et al. teach a perspective view (Fig. 6). With regard to a manipulable representation, as shown in claim 4, Faust et al. teach controls for the display (par. 59). With regard to rendering two-dimensional waveforms in perspective, as shown in claim 5, Faust et al. teach a perspective view (Fig. 6).

### ***Claim Rejections - 35 USC § 103***

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and

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the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 6-8 and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Faust et al. in view of Randall et al. (US Patent Application Publication 20030036864).

Faust et al. teach all the limitations of claim 1 upon which claims 6-8 and 16 depend. Faust et al. do not teach a common trigger even, a time stamp or a common clock signal, as shown in claims 6-8 and 16. Randall et al. teach using time records and a common clock to align signals temporally (pars. 10, 15, 17). It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the measurement instrument, as taught by Faust et al., to include a common clock and time records, as taught by Randall et al., because then signals measured in different locations would have been easily aligned temporally for comparison (par. 10).

8. Claims 9 and 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Faust et al. in view of Zocchi (US Patent Application Publication 2004/0174818).

Faust et al. teach all the limitations of claim 1 upon which claims 9 and 10 depend. Faust et al. do not teach a common trigger event, as shown in claim 9, or that the trigger event is an analog or digital signal, as shown in claim 10. Zocchi teaches a common trigger signal (par. 14). It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the measurement instrument, as taught by Faust et al., to include a common trigger, as taught by Zocchi, because then signals to be compared would have been captured simultaneously.

***Allowable Subject Matter***

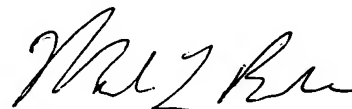
9. Claims 13-15, 18, 20 and 21 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Manuel L. Barbee whose telephone number is 571-272-2212. The examiner can normally be reached on Monday-Friday from 9-5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Marc S. Hoff can be reached on 571-272-2216. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Manuel L. Barbee  
Examiner  
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